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EXAMINER

MORRIS, PATRICIA L

ART UNIT	PAPER NUMBER
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1625

DATE MAILED: 10/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,928

Applicant(s)

Gesing et al

Examiner

J. Morris

Group/Art Unit

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—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 7/24/02
- ☐ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-5, 8 and 10 is/are pending in the application.
- ☐ Of the above claim(s) is/are withdrawn from consideration.
- ☐ Claim(s) is/are allowed.
- ☒ Claim(s) 1-5, 8 and 10 is/are rejected.
- ☐ Claim(s) is/are objected to.
- ☐ Claim(s) are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

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DETAILED ACTION

Claims 1- 5, 8 and 10 are under consideration in this application.

Election/Restriction

Applicant's election with traverse of Group I, process (a) of claim 5 and the compound of example 2 in Paper No. 6, filed July 24, 2002 is acknowledged. Applicants assert that unity of invention is present in the application because the International Search Report nor the International Preliminary Examination Report found no lack of unity. This is not persuasive for the reasons set forth in Paper no. 5 and that applicants' claims are drawn to multiple products and processes. Further, PCT may have chosen not to restrict the application.

Caterpillar Tractor Co. Vs. Commissioner of Patents and Trademarks, 231 USPQ 590, discussed at 1134 T.M.O.G. 197 does not change the U.S. practice of restricting between multiple products within a claim. Such a restriction is proper both before and after Caterpillar, note 1134 TMOG 197, where independent and distinct inventions are present within on claim. However, after Caterpillar applicants are entitled, once they pick a single compound invention, as delineated above, to have one process of making their compound invention examined therewith, in 371 cases.

Clearly 37 CFR 1.475 means one when they say a. See the commentary on the rules, 1134 OG 194-209. Note specifically, p. 1134 O.G. 197, col. 2 paragraph numbered (6). PCT Rule 13 provides "claims are permitted to one product, one process of manufacturing the product, and one

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use of the product". If multiple products, process of manufacture or uses are claimed, the first invention in the category first mentioned in the claims would be considered as the elected invention".

The lack of unity requirement is deemed sound and proper and will be maintained.

This application has been examined with regard to the elected compounds wherein R¹, R³ and R⁴ represent non-heterocyclic groups and Q¹, Q² and R² as set forth in claim 1, exclusively.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

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Claims 1-4, 8 and 10 are rejected under 35 U.S.C. 103(a) as being obvious over the combined teachings of Muller et al. I (US 6,180,567), II (WO 97/16449) and Daum et al. (US 5,094,683).

The applied reference of Muller et al. I has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(l)(1) and § 706.02(l)(2).

Muller et al I., II and Daum et al. teach analogous compounds having the same use. The prior art compounds differ from the compound claimed herein as position isomers. Example 1 of

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Muller et al. I, II have the same substituents except that the ester and methyl groups are interchanged. Further, Daum et al. teach that the ester group on the thiophene ring may be at different positions on the ring. Note, for example, column 6, lines 1-17, therein. One having ordinary skill in the art would have been motivated by the disclosure of the prior art compounds to arrive at other compounds within the claimed genus. The motivation to make these compounds is their close structural similarities to the disclosed compounds. Note that the disclosed compounds have herbicidal activity, thus the skilled artisan would expect such structurally similar compounds to possess similar properties. While homology is considered to be present even if true "homology" is not present, such does not defeat the prima facie case of obviousness raised by the art. Attention, in this regard is directed to In re Druey et al., 50 CCPA 1538, 319 F.2d 237, 138 USPQ 39, wherein Judge Worley, delivering the Court's opinion, stated:

"We need not decide here whether the compounds in question are properly labeled homologues. It appears to us from the authorities cited by the solicitor and appellants that the term homologue is used by chemists at times in a broad sense, and at other times in a narrow or strict sense. The name used to designate the relationship between the related compound is not necessarily controlling; it is the closeness of that relationship which is indicative of the obviousness or unobviousness of the new compound." 50 CCPA 1541.

Also, as the Court stated in In re Payne et al., 606 F.2d 302, 203 USPQ 245 at 255

(CCPA 1979):

"the name used to designate the relationship between related compounds is not necessarily controlling; it is the closeness of that relationship which is indicative of the obviousness or unobviousness of the new compound."

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In addition, any question of why would one conceive and use the similar compounds (*i.e.* “motivation”) is answered by the Court in In re Gyurik et al., 596 F.2d 1012, 201 USPQ 552 at 557.

“In obviousness rejections based in close similarity in chemical structure, the necessary motivation to make a claimed compound, and thus the *prima facie* case of obviousness, rises from the expectation that compounds similar in structure will have similar properties.”

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of Muller et al. I, II and Daum et al.

Muller et al. I, II and Daum et al. disclose the instant process. Note, for example, process variant (a) in Column 3, lines 1-32 of Muller et al. I or process variant (b) of Daum et al. As here, a sulphonamide is reacted with a triazolinone. The reaction of a specific sulphonamide with a triazolinone does not render the process step itself patentable, anew; In re Albertson, 141 USPQ 730, which was specifically reaffirmed on the last page of In re Kuehl, 177 USPQ 250.

One having ordinary skill in the art would have been motivated to employ the process of the prior art with the expectation of obtaining the desired product, because he would have expected the analogous starting materials to react similarly. It has been held that application of an old process to a new and analogous material to obtain a result consistent with the teachings of the art would have been obvious to one having ordinary skill.

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Chemistry is a teaching of analogous reactions, that enables one of ordinary skill in the art to predict synthesis routes, note Cram and Hammond, "Organic Chemistry", Mc-Graw-Hill Book Co., New York, (1964) 2nd Edition, pp. 565-67.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 5 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The terms alkyl, alkenyl, alkoxy, aryl, etc., alone or in a combined term, in the R¹-R⁴, , groups, are not limited from infinity in their carbon size in claim 1. Very large hydrocarbons would be waxes, which would make them unacceptable for herbicidal preparations.

Aryl could be read as aromatic. Some aromatic groups are heterocyclic. Therefore, the indefiniteness of the claim causes overlap.

Applicants claim all aryl radicals in R¹, R³ and R⁴. Applicants' exemplification cannot be seen to provide adequate representative support for such a claim.

There are no carbon limits on aryl in claim 1.

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The definition of aryl is varied, note the footnotes on pages 134 USPQ 301-304 of In re Sus, for multiple varied definitions of aryl.

Therefore, applicants need to indicate in the claims what they intend by aryl.

All aryl radicals are not supported in the specification, yet they are claimed here.

Applicants could resolve this point in the claim by indicating aryl is phenyl, naphthyl, or indicate a carbocyclic aryl of 6 to 10 carbon atoms.

A Markush listing of specific intended, producible rings for aryl and arylalkyl is suggested in claim 1.

The expression “optionally substituted” is employed with considerable abandon throughout claim 1 with no indication given as to what the substituents really are.

One should be able, from a reading of the claims, determine what that claim does or does not encompass.

Why? Because that claim precludes others from making, using, or selling that compound for 20 years. Therefore, one must know what compound is being claimed.

Where is, what is intended by applicant, supported in the specification with sufficient representative exemplification. Note United Carbon Co., v. Binney Smith Co., 55 USPQ 381, Supreme Court of the United States (1942) “ an invention must be capable of accurate definition, and it must be accurately defined to be patentable”, above at page 386.

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The unknown substitution and aryl variables are not believed to meet the requirements of 35 USC 112, first paragraph. These unknown substituents and aryl groups could easily alter the utility.

The written description is considered inadequate here in the specification. Conception of the intended substituents and aryl groups should not be the role of the reader. Applicants should, in return for a 20 year monopoly, be disclosing to the public that which they know as an actual demonstrated fact. The disclosure should not be merely an invitation to experiment. This is a 35 USC 112, first paragraph. If you (the public) find that it works, I claim it, is not a proper basis of patentability. In re Kirk, 153 USPQ 48, at page 53.

Claims 5 and 8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 fails to recite an effective amount of active ingredient. A mere trace may prove inoperable.

Claim 5 fails to recite a complete process because it does not recite the reaction conditions such as reagents, solvents, temperature, etc. The expression "if appropriate" is indefinite to its meaning. How is appropriateness determined? What is meant by "acid binder"? The term converting fails to describe a process. Salt formation is an obvious process under 35 USC 103. The term reaction auxiliary is unclear to its meaning.

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The claims measure the invention. United Carbon Co. V. Binney & Smith Co., 55 USPQ 381 at 384, col. 1, end of 1st paragraph, Supreme Court of the United States (1942).

The U.S. Court of Claims held to this standard in *Lockheed Aircraft Corp. v. United States*, 193 USPQ 449, "Claims measure invention and resolution of invention must be based on what is claimed".

The C.C.P.A. in 1978 held "that invention is the subject matter defined by the claims submitted by the applicant. We have consistently held that no applicant should have limitations of the specification read into a claim where no express statement of the limitation is included in the claim": In re Priest, 199 USPQ 11, at 15.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

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provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-5, 8 and 10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of U.S. Patent No. 6,180,567 in view of Daum et al. As discussed supra, the instant compounds are the position isomers of '567. Further, Daum et al. teach that the substituents on the thiophene ring may be at different positions and still retain herbicidal activity. Hence, patentable distinction is not seen.

Claims 1-3, 8 and 10 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-9 of U.S. Patent No. 5,094,685. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant compounds wherein R² is hydrogen are the position isomers of the claimed compounds therein. The instant and prior art compounds both are useful as herbicides.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Morris whose telephone number is (703) 308-4533. The examiner can normally be reached Mondays through Fridays.


PATRICIAL. MORRIS
PRIMARY EXAMINER
GROUP 120

plm

September 27, 2002